Then invention will now be further described by the following numbered paragraphs:

1. A method for enhancing the production of an infectious retrovirus comprising an envelope polypeptide in a producer cell which method comprises inhibiting the expression or activity in the producer cell of an endogenous receptor which is capable of binding to the envelope polypeptide of said retroviruses.

2. A method according to paragraph 1, wherein the receptor is selected from Pit1, Pit2 and CD4 and its coreceptors.

3. A method according to paragraph 1 or 2, wherein the envelope polypeptide is an amphotropic envelope polypeptide.

4. A method according to any one of paragraphs 1 to 3, wherein the expression of the receptor is inhibited by expressing in the producer cell a gene product capable of binding to and effecting the cleavage, directly or indirectly, of a nucleotide sequence encoding the receptor, or a transcription product thereof.

5. A method according to paragraph 4, wherein the gene product is selected from a ribozyme, an anti-sense ribonucleic acid and an external guide sequence.

6. A method according to paragraph 4, wherein the gene product is expressed by a viral vector.

7. A method according to paragraph 6, wherein the viral vector is a retroviral vector.

8. A method according to paragraph 7, wherein the retroviral vector is a lentiviral vector.

9. A method according to any one of the preceding paragraphs wherein the retrovirus is a lentivirus.

10. A method according to any one of the preceding paragraphs which further comprises isolating the infectious retrovirus produced by the producer cell.

11. A composition comprising an infectious retrovirus obtained by the method of paragraph 10.

12. A composition according to paragraph 11 for use in therapy.

13. A method for producing a pharmaceutical composition which method comprises isolating an infectious retrovirus produced by the producer cell according to the method of any one of paragraphs 1 to 9 and admixing the isolated infectious retrovirus with a pharmaceutically acceptable carrier, diluent or excipient.

14. A nucleic acid comprising a nucleotide sequence encoding a ribozyme capable of binding to an effecting the cleavage of an RNA encoding a *pit2* receptor.

15. A nucleic acid according to paragraph 14 comprising a nucleotide sequence as shown in Figure 1 or a variant thereof capable of binding to an effecting the cleavage of an RNA encoding a *pit2* receptor.

16. A producer cell in which the capacity for producing an infectious retrovirus is enhanced by a method according to any of paragraphs 1 to 9.

17. A producer cell in which the expression or activity of an endogenous receptor, capable of binding to the envelope polypeptide of a retrovirus, is inhibited.

18. A producer cell according to paragraph 17, which expresses a gene product capable of binding to and effecting the cleavage, directly or indirectly, of a nucleotide sequence encoding the endogenous receptor, or a transcription product thereof.

SEQUENCE LISTING

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<120> IMPROVED RETROVIRAL PRODUCTION

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CLAIMS

1. A method for enhancing the production of an infectious retrovirus comprising an envelope polypeptide in a producer cell which method comprises inhibiting the expression or activity in the producer cell of an endogenous receptor which is capable of binding to the envelope polypeptide of said retroviruses.

2. A method according to claim 1, wherein the receptor is selected from Pit1, Pit2 and CD4 and its coreceptors.

3. A method according to claim 1, wherein the envelope polypeptide is an amphotropic envelope polypeptide.

4. A method according to claim 1, wherein the expression of the receptor is inhibited by expressing in the producer cell a gene product capable of binding to and effecting the cleavage, directly or indirectly, of a nucleotide sequence encoding the receptor, or a transcription product thereof.

5. A method according to claim 4, wherein the gene product is selected from a ribozyme, an anti-sense ribonucleic acid and an external guide sequence.

6. A method according to claim 4, wherein the gene product is expressed by a viral vector.

7. A method according to claim 6, wherein the viral vector is a retroviral vector.

8. A method according to claim 7, wherein the retroviral vector is a lentiviral vector.

9. A method according to claim 1 wherein the retrovirus is a lentivirus.

10. A method according to claim 1 which further comprises isolating the infectious retrovirus produced by the producer cell.

11. A composition comprising an infectious retrovirus obtained by the method of claim 10.

12. A composition according to claim 11 for use in therapy.

13. A method for producing a pharmaceutical composition which method comprises isolating an infectious retrovirus produced by the producer cell according to the method of claim 1 and admixing the isolated infectious retrovirus with a pharmaceutically acceptable carrier, diluent or excipient.

14. A nucleic acid comprising a nucleotide sequence encoding a ribozyme capable of binding to an effecting the cleavage of an RNA encoding a *pit2* receptor.

15. A nucleic acid according to claim 14 comprising a nucleotide sequence as shown in Figure 1 or a variant thereof capable of binding to an effecting the cleavage of an RNA encoding a *pit2* receptor.

16. A producer cell in which the capacity for producing an infectious retrovirus is enhanced by a method according to claim 1.

17. A producer cell in which the expression or activity of an endogenous receptor, capable of binding to the envelope polypeptide of a retrovirus, is inhibited.

18. A producer cell according to claim 17, which expresses a gene product capable of binding to and effecting the cleavage, directly or indirectly, of a nucleotide sequence encoding the endogenous receptor, or a transcription product thereof.